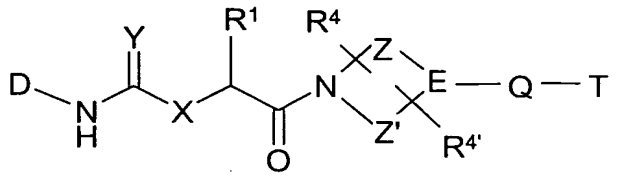
Patent Claims

1. Compounds of the formula I



I

in which

D denotes a mono- or bicyclic aromatic carbo- or heterocycle having 0 to 4 N, O and/or S atoms which is unsubstituted or mono- or polysubstituted by Hal, A, OR^2, $N(R^2)_2$, NO_2, CN, $COOR^2$, $CON(R^2)_2$ or -C≡CH,

X denotes NR^3 or O,

Y denotes O, S, NH, N-CN or N-NO_2,

R^1 denotes H, Ar, Het, cycloalkyl or A, which may be mono-, di- or trisubstituted by OR^2, SR^2, $S(O)_mR^2$, $SO_2N(R^2)_2$, SO_3R^2, $S(=O)(=NR^2)R^2$, $NR^2SO_2R^2$, OSO_2R^2, $OSO_2N(R^2)_2$, $N(R^2)_2$, CN, $COOR^2$, $CON(R^2)_2$, Ar, Het or cycloalkyl,

E denotes CH or N,

Z is absent or denotes a $(CH_2)_q$ group, in which one or two CH_2 groups may be replaced by N, O and/or S atoms and/or by a -CH=CH- group and which is unsubstituted or monosubstituted by carbonyl oxygen (=O),

Z' is absent or denotes a $(CH_2)_{q'}$ group, in which one or two CH_2 groups may be replaced by N, O and/or S atoms and/or by a -CH=CH- group and which is unsubstituted or monosubstituted by carbonyl oxygen (=O),

Q is absent or denotes O, NR^2, C=O, SO_2 or $C(R^2)_n$,

R^2 denotes H, A, -$[C(R^3)_2]_n$-Ar', -$[C(R^3)_2]_n$-Het', -$[C(R^3)_2]_n$-cycloalkyl, -$[C(R^3)_2]_n$-$N(R^3)_2$ or -$[C(R^3)_2]_n$-OR^3,

R^3 denotes H or A,

R^4, $R^{4'}$ each, independently of one another, is absent or denote A, OH or OA,

R^4 and $R^{4'}$ together also denote methylene or ethylene,

T denotes a mono- or bicyclic saturated, unsaturated or aromatic carbo- or heterocycle having 0 to 4 N, O and/or S atoms, which may be mono-, di- or trisubstituted by =O, =S, =NH, =NR^3, =NOR^3, =$NCOR^3$, =$NCOOR^3$, =$NOCOR^3$, R^3, Hal, A, -$[C(R^3)_2]_n$-Ar, -$[C(R^3)_2]_n$-Het, -$[C(R^3)_2]_n$-cycloalkyl, OR^3, $N(R^3)_2$, NO_2, CN, $COOR^3$, $CON(R^3)_2$, NR^3COA, $NR^3CON(R^3)_2$, NR^3SO_2A, COR^3, SO_2NR^2 and/or $S(O)_nA$,

A denotes unbranched or branched alkyl having 1-10 C atoms, in which one or two CH_2 groups may be replaced by O or S atoms and/or by -CH=CH- groups and/or also 1-7 H atoms may be replaced by F,

Ar denotes phenyl, naphthyl or biphenyl, each of which is unsubstituted or mono-, di- or trisubstituted by Hal, A, OR^2, $N(R^2)_2$, NO_2, CN, $COOR^2$, $CON(R^2)_2$, NR^2COA, NR^2SO_2A, COR^2, $SO_2N(R^2)_2$, -$[C(R^3)_2]_n$-$COOR^2$, -O-$[C(R^3)_2]_o$-$COOR^2$, SO_3H or $S(O)_nA$,

Ar' denotes phenyl which is unsubstituted or mono-, di- or trisubstituted by Hal, A, OR^3, $N(R^3)_2$, NO_2, CN, $COOR^3$, $CON(R^3)_2$, NR^3COA, $NR^3CON(R^3)_2$, NR^3SO_2A, COR^3, $SO_2N(R^3)_2$, $S(O)_nA$, -$[C(R^3)_2]_n$-$COOR^3$ or -O-$[C(R^3)_2]_o$-$COOR^3$,

Het denotes a mono- or bicyclic saturated, unsaturated or aromatic heterocycle having 1 to 4 N, O and/or S atoms, which may be unsubstituted or mono-, di- or trisubstituted

by carbonyl oxygen (=O), =S, $=N(R^2)_2$, Hal, A, $-[C(R^3)_2]_n$-Ar, $-[C(R^3)_2]_n$-Het', $-[C(R^3)_2]_n$-cycloalkyl, $-[C(R^3)_2]_n-OR^2$, $-[C(R^3)_2]_n-N(R^3)_2$, NO_2, CN, $-[C(R^3)_2]_n-COOR^2$, $-[C(R^3)_2]_n-CON(R^2)_2$, $-[C(R^3)_2]_n-NR^2COA$, $NR^2CON(R^2)_2$, $-[C(R^3)_2]_n-NR^2SO_2A$, COR^2, $SO_2N(R^2)_2$ and/or $S(O)_nA$,

Het' denotes a mono- or bicyclic saturated, unsaturated or aromatic heterocycle having 1 to 4 N, O and/or S atoms, which may be unsubstituted or mono- or disubstituted by carbonyl oxygen, =S, $=N(R^3)_2$, Hal, A, OR^3, $N(R^3)_2$, NO_2, CN, $COOR^3$, $CON(R^3)_2$, NR^3COA, $NR^3CON(R^3)_2$, NR^3SO_2A, COR^3, $SO_2N(R^3)_2$ and/or $S(O)_nA$,

Hal denotes F, Cl, Br or I,

m denotes 1 or 2,

n denotes 0, 1 or 2,

o denotes 1, 2 or 3,

p denotes 1, 2, 3, 4 or 5,

q, q' each, independently of one another, denote 0, 1, 2, 3 or 4,

where

at least one of the groups Z or Z' is present, and

$0 < q + q' \leq 6$,

and pharmaceutically usable derivatives, solvates, salts and stereoisomers thereof, including mixtures thereof in all ratios.

2. Compounds according to Claim 1 in which

D denotes phenyl which is unsubstituted or mono- or disubstituted by Hal, A, OR^2 or $COOR^2$, or pyridyl which is unsubstituted or monosubstituted by Hal,

and pharmaceutically usable derivatives, solvates, salts and stereoisomers thereof, including mixtures thereof in all ratios.

3. Compounds according to Claim 1 or 2 in which

D denotes phenyl which is monosubstituted by Hal,

and pharmaceutically usable derivatives, solvates, salts and stereoisomers thereof, including mixtures thereof in all ratios.

4. Compounds according to one or more of Claims 1-3 in which

R^2 denotes H or A,

and pharmaceutically usable derivatives, solvates, salts and stereoisomers thereof, including mixtures thereof in all ratios.

5. Compounds according to one or more of Claims 1-4 in which

T denotes a mono- or bicyclic saturated, unsaturated or aromatic heterocycle having 1 to 2 N, O and/or S atoms, which may be unsubstituted or mono- or disubstituted by A or carbonyl oxygen (=O),
phenyl which is unsubstituted or mono-, di- or trisubstituted by Hal, OR^2 or NR^2COA,
or a monocyclic unsubstituted, saturated carbocycle,

and pharmaceutically usable derivatives, solvates, salts and stereoisomers thereof, including mixtures thereof in all ratios.

6. Compounds according to one or more of Claims 1-5 in which

Q is absent or denotes O or CH_2,

and pharmaceutically usable derivatives, solvates, salts and stereoisomers thereof, including mixtures thereof in all ratios.

7. Compounds according to one or more of Claims 1-6 in which

Ar denotes phenyl which is unsubstituted or mono-, di- or trisubstituted by Hal, A, OR^2, NR^2COA, SO_2A, SO_2NH_2, $COOR^2$ or CN,

and pharmaceutically usable derivatives, solvates, salts and stereoisomers thereof, including mixtures thereof in all ratios.

8. Compounds according to one or more of Claims 1-7 in which

Ar denotes phenyl which is unsubstituted or mono-, di- or trisubstituted by Hal, A, OR^3 or NR^3COA,

and pharmaceutically usable derivatives, solvates, salts and stereoisomers thereof, including mixtures thereof in all ratios.

9. Compounds according to one or more of Claims 1-8 in which

R^1 denotes Ar, Het, cycloalkyl or

A, which may be monosubstituted by OR^2,

and pharmaceutically usable derivatives, solvates, salts and stereoisomers thereof, including mixtures thereof in all ratios.

10. Compounds according to one or more of Claims 1-9 in which

R^1 denotes phenyl which is unsubstituted or mono-, di- or trisubstituted by Hal, OH or OA,

a monocyclic aromatic heterocycle having 1 to 2 N, O and/or S atoms,

or

A, which may be monosubstituted by OR^3,

and pharmaceutically usable derivatives, solvates, salts and stereoisomers thereof, including mixtures thereof in all ratios.

11. Compounds according to one or more of Claims 1-10 in which

Het denotes a mono- or bicyclic saturated, unsaturated or aromatic heterocycle having 1 to 2 N, O and/or S atoms, which may be unsubstituted or mono- or disubstituted by A or carbonyl oxygen (=O),

and pharmaceutically usable derivatives, solvates, salts and stereoisomers thereof, including mixtures thereof in all ratios.

12. Compounds according to one or more of Claims 1-11 in which

Y denotes O,

and pharmaceutically usable derivatives, solvates, salts and stereoisomers thereof, including mixtures thereof in all ratios.

13. Compounds according to one or more of Claims 1-12 in which

X denotes $NR^{3'}$ or O,

$R^{3'}$ denotes H,

and pharmaceutically usable derivatives, solvates, salts and stereoisomers thereof, including mixtures thereof in all ratios.

14. Compounds according to one or more of Claims 1-13 in which

Z, Z' denote ethylene,

and pharmaceutically usable derivatives, solvates, salts and stereoisomers thereof, including mixtures thereof in all ratios.

15. Compounds according to one or more of Claims 1-14 in which

T denotes a monocyclic saturated or aromatic heterocycle having 1 to 2 N and/or O atoms, which may be unsubstituted or mono- or disubstituted by A or carbonyl oxygen (=O),

phenyl which is unsubstituted or mono-, di- or trisubstituted by Hal, OH, OA or NHCOA,

or a monocyclic unsubstituted, saturated carbocycle,

and pharmaceutically usable derivatives, solvates, salts and stereoisomers thereof, including mixtures thereof in all ratios.

16. Compounds according to one or more of Claims 1-15 in which

A denotes unbranched or branched alkyl having 1-10 C atoms, in which 1-7 H atoms may be replaced by F,

and pharmaceutically usable derivatives, solvates, salts and stereoisomers thereof, including mixtures thereof in all ratios.

17. Compounds according to one or more of Claims 1-16 in which

D denotes phenyl which is unsubstituted or mono- or disubstituted by Hal, A, OR^2 or $COOR^2$, or pyridyl which is unsubstituted or monosubstituted by Hal,

X denotes NR^3 or O,

Y denotes O,

R^1 denotes Ar, Het, cycloalkyl or A, which may be monosubstituted by OR^2,

E denotes CH or N,

Z, Z' denote ethylene,

Q is absent or denotes O or CH_2,

R^2 denotes H or A,

R^3 denotes H or A,

R^4, $R^{4'}$ each, independently of one another, is absent or denote A, OH or OA,

R^4 and $R^{4'}$ together also denote methylene or ethylene,

T denotes a monocyclic saturated or aromatic heterocycle having 1 to 2 N and/or O atoms, which may be unsubstituted or mono- or disubstituted by A or carbonyl oxygen (=O),
phenyl which is unsubstituted or mono-, di- or trisubstituted by Hal, OH, OA or NHCOA,
or a monocyclic unsubstituted, saturated carbocycle,

A denotes unbranched or branched alkyl having 1-10 C atoms, in which 1-7 H atoms may be replaced by F,

Ar denotes phenyl which is unsubstituted or mono-, di- or trisubstituted by Hal, A, OR^2, NR^2COA, SO_2A, SO_2NH_2, $COOR^2$ or CN,

Het denotes a mono- or bicyclic saturated, unsaturated or aromatic heterocycle having 1 to 2 N, O and/or S atoms, which may be unsubstituted or mono- or disubstituted by A or carbonyl oxygen (=O),

Hal denotes F, Cl, Br or I,

p denotes 1, 2, 3, 4 or 5,

and pharmaceutically usable derivatives, solvates, salts and stereoisomers thereof, including mixtures thereof in all ratios.

18. Compounds according to one or more of Claims 1-17 in which

D denotes phenyl which is monosubstituted by Hal,

X denotes $NR^{3'}$ or O,

Y denotes O,

R^1 denotes phenyl which is unsubstituted or mono-, di- or trisubstituted by Hal, OH or OA,

a monocyclic aromatic heterocycle having 1 to 2 N, O and/or S atoms,

or

A, which may be monosubstituted by OR^3,

$R^{3'}$ denotes H,

E denotes CH or N,

Z, Z' denote ethylene,

Q is absent or denotes O or CH_2,

R^2 denotes H or A,

R^3 denotes H or A,

R^4, $R^{4'}$ each, independently of one another, is absent or denote A, OH or OA,

R^4 and $R^{4'}$ together also denote methylene or ethylene,

T denotes a monocyclic saturated or aromatic heterocycle having 1 to 2 N and/or O atoms, which may be unsubstituted or mono- or disubstituted by A or carbonyl oxygen (=O),

phenyl which is unsubstituted or mono-, di- or trisubstituted by Hal, OH, OA or NHCOA,

or a monocyclic unsubstituted, saturated carbocycle,

A denotes unbranched or branched alkyl having 1-10 C atoms, in which 1-7 H atoms may be replaced by F,

Hal denotes F, Cl, Br or I,

and pharmaceutically usable derivatives, solvates, salts and stereoisomers thereof, including mixtures thereof in all ratios.

19. Compounds according to one or more of Claims 1-18 in which

D denotes phenyl which is monosubstituted by Hal,

X denotes $NR^{3'}$ or O,

Y denotes O,

R^1 denotes thienyl, furyl, phenyl which is unsubstituted or mono-, di- or trisubstituted by Hal, OH or OA,

or

A, which may be monosubstituted by OR^3,

R^3 denotes H or A,

$R^{3'}$ denotes H,

E denotes CH or N,

Z, Z' denote ethylene,

Q is absent or denotes O or CH_2,

R^2 denotes H or A,

R^3 denotes H or A,

R^4, $R^{4'}$ each, independently of one another, is absent or denote A, OH or OA,

R^4 and $R^{4'}$ together also denote methylene or ethylene,

T denotes piperidinyl, piperazinyl, pyridinyl, 2-oxopiperidin-1-yl, 2-oxopiperidin-4-yl, 2-oxopyrrolidin-1-yl, pyrrolidin-1-yl, 2-oxo-1*H*-pyridin-1-yl, 3-oxomorpholin-4-yl, morpholin-4-yl, 4-oxo-1*H*-pyridin-1-yl, 2,6-dioxopiperidin1-yl, 2-oxo-piperazin-1-yl, 2,6-dioxopiperazin1-yl, 2,5-dioxopyrrolidin-1-yl, 2-oxo-1,3-oxazolidin-3-yl, pyridazinyl, 3-oxo-2*H*-pyridazin-2-yl, 2-caprolactam-1-yl (= 2-oxoazepan-1-yl), 6-oxopiperazin-1-yl, 2-azabicyclo[2.2.2]octan-3-on-2-yl,

5,6-dihydro-1*H*-pyrimidin-2-oxo-1-yl, 2-oxo-1,3-oxazinan-3-yl or 4*H*-1,4-oxazin-4-yl, where the radicals may additionally be monosubstituted by A,

phenyl which is unsubstituted or mono-, di- or trisubstituted by Hal, OH, OA or NHCOA,

or a monocyclic unsubstituted, saturated carbocycle,

A denotes unbranched or branched alkyl having 1-10 C atoms, in which 1-7 H atoms may be replaced by F,

Hal denotes F, Cl, Br or I,

and pharmaceutically usable derivatives, solvates, salts and stereoisomers thereof, including mixtures thereof in all ratios.

20. Compounds according to one or more of Claims 1-19 in which

D denotes phenyl which is monosubstituted by Hal,

X denotes $NR^{3'}$ or O,

Y denotes O,

R^1 denotes thienyl, furyl, phenyl which is unsubstituted or mono-, di- or trisubstituted by Hal, OH or OA,

or

A, which may be monosubstituted by OR^3,

R^3 denotes H or A,

$R^{3'}$ denotes H,

E denotes CH or N,

Z denotes ethylene,

Z' denotes ethylene,

Q is absent or denotes O or CH_2,

R^2 denotes H or A,

R^3 denotes H or A,

R^4, $R^{4'}$ is absent,

R^4 and $R^{4'}$ together also denote methylene or ethylene,

T denotes piperidin-1- or 4-yl, piperazinyl, morpholin-4-yl, each of which is unsubstituted or monosubstituted by A and/or carbonyl oxygen (=O), or unsubstituted cyclohexyl,

A denotes unbranched or branched alkyl having 1-10 C atoms, in which 1-7 H atoms may be replaced by F,

Hal denotes F, Cl, Br or I,

and pharmaceutically usable derivatives, solvates, salts and stereoisomers thereof, including mixtures thereof in all ratios.

21. Compounds according to Claim 1

(R)-1-(4-chlorophenyl)-3-[2-(1'-methyl-4,4'-bipiperidinyl-1-yl)-2-oxo-1-phenylethyl]urea,

(R)-1-(4-chlorophenyl)-3-{2-[4-(4-fluorophenyl)piperazin-1-yl]-2-oxo-1-phenylethyl}urea,

(R)-1-(4-chlorophenyl)-3-{2-[4-(4-fluorophenoxy)piperidin-1-yl]-2-oxo-1-phenylethyl}urea ,

(R)-1-(4-chlorophenyl)-3-[2-oxo-1-phenyl-2-(4-pyridin-4-yl-piperazin-1-yl)ethyl]urea bistrifluoroacetate,

(R)-1-(4-chlorophenyl)-3-{2-[4-(1-methylpiperidin-4-yl)piperazin-1-yl]-2-oxo-1-phenylethyl}urea bistrifluoroacetate,

(R)-1-(4-chlorophenyl)-3-{2-[4-(4-ethylpiperazin-1-yl)piperidin-1-yl]-2-oxo-1-phenylethyl}urea bistrifluoroacetate,

(R)-1-(4-chlorophenyl)-3-[2-oxo-1-phenyl-2-(4-pyridin-3-yl-methylpiperazin-1-yl)ethyl]urea bistrifluoroacetate,

(R,R)-1-(4-chlorophenyl)-3-{2-methoxy-1-[1-(4-pyridin-4-yl-piperazin-1-yl)methanoyl]propyl}urea bistrifluoroacetate,

(R,R)-1-(4-chlorophenyl)-3-(2-methoxy-1-{1-[4-(1-methyl-piperidin-4-yl)piperazin-1-yl]methanoyl}propyl)urea bistrifluoroacetate,

(R,R)-1-(4-chlorophenyl)-3-{2-methoxy-1-[1-(1'-methyl-4,4'-bipiperidinyl-1-yl)methanoyl]propyl}urea trifluoroacetate,

(R)-1-(4-chlorophenyl)-3-[2-oxo-1-phenyl-2-(4-pyridin-4-yl-piperazin-1-yl)ethyl]urea,

(R)-1-(4-chlorophenyl)-3-[1-(4-pyridin-4-ylpiperazine-1-carbonyl)butyl]urea,

(R)-1-(4-chlorophenyl)-3-{2-[4-hydroxy-4-(4-methoxyphenyl)-piperidin-1-yl]-2-oxo-1-phenylethyl}urea,

(R)-1-(4-chlorophenyl)-3-{2-[4-(2-methoxyphenyl)piperazin-1-yl]-2-oxo-1-phenylethyl}urea,

(R)-N-[4-(1-{2-[3-(4-chlorophenyl)ureido]-2-phenylethanoyl}-piperidin-4-ylmethyl)phenyl]acetamide,

(R)-1-(4-chlorophenyl)-3-{2-oxo-1-phenyl-2-[4-(1-phenyl-methanoyl)piperidin-1-yl]ethyl}urea,

(R)-1-(4-chlorophenyl)-3-[2-oxo-1-phenyl-2-(4-pyridin-2-yl-piperazin-1-yl)ethyl]urea,

(R)-1-[2-(4-benzylpiperazin-1-yl)-2-oxo-1-phenylethyl]-3-(4-chlorophenyl)urea,

(R)-1-(4-chlorophenyl)-3-{2-[5-(4-fluorophenyl)-2,5-diaza-bicyclo[2.2.1]hept-2-yl]-2-oxo-1-phenylethyl}urea,

(R)-1-(4-chlorophenyl)-3-{2-[4-(4,6-dimethylpyrimidin-2-yl)-piperazin-1-yl]-2-oxo-1-phenylethyl}urea,

(R,S)-1-[2-(3-benzylpiperidin-1-yl)-2-oxo-1-phenylethyl]-3-(4-chlorophenyl)urea,

(S,S)-1-(4-chlorophenyl)-3-{2-hydroxy-1-[1-(4-pyridin-4-yl-piperazin-1-yl)methanoyl]propyl}urea,

(S,S)-1-(4-chlorophenyl)-3-(2-hydroxy-1-{1-[4-(1-methylpiperidin-4-yl)piperazin-1-yl]methanoyl}propyl)urea,

(R,R)-1-(4-chlorophenyl)-3-{2-methoxy-1-[1-(4-pyridin-3-yl-methylpiperazin-1-yl)methanoyl]propyl}urea bistrifluoroacetate,

(R)-1-(4-chlorophenyl)-3-[2-oxo-1-phenyl-2-(4-pyridin-4-yl-piperazin-1-yl)ethyl]urea bistrifluoroacetate,

(R,R)-1-(4-chlorophenyl)-3-(1-{1-[4-(4-ethylpiperazin-1-yl)-piperidin-1-yl]methanoyl}-2-methoxypropyl)urea bistrifluoroacetate,

(R)-1-(4-chlorophenyl)-3-{2-[4-(1-methylpiperidin-4-yl)piperazin-1-yl]-2-oxo-1-phenylethyl}urea bistrifluoroacetate,

(R)-1-(2-4,4'-bipiperidinyl-1-yl-2-oxo-1-phenylethyl)-3-(4-chlorophenyl)urea hydrochloride,

(R)-1-[2-4,4'-bipiperidinyl-1-yl-1-(4-hydroxyphenyl)-2-oxoethyl]-3-(4-chlorophenyl)urea hydrochloride,

(R)-1-(2-4,4'-bipiperidinyl-1-yl-2-oxo-1-thiophen-2-ylethyl)-3-(4-chlorophenyl)urea hydrochloride,

(R)-1-(4-chlorophenyl)-3-[1-(4-hydroxyphenyl)-2-(1'-methyl-4,4'-bipiperidinyl-1-yl)-2-oxoethyl]urea trifluoroacetate,

(R)-1-(4-chlorophenyl)-3-[2-(1'-methyl-4,4'-bipiperidinyl-1-yl)-2-oxo-1-thiophen-2-ylethyl]urea trifluoroacetate,

(R)-1-(4-chlorophenyl)-3-[1-(4-hydroxyphenyl)-2-(4-morpholin-4-ylpiperidin-1-yl)-2-oxoethyl]urea trifluoroacetate,

1-[2-[1,4']bipiperidinyl-1'-yl-1-(4-hydroxyphenyl)-2-oxoethyl]-3-(4-chlorophenyl)urea,

(R)-1-(4-chlorophenyl)-3-[2-(4-morpholin-4-ylpiperidin-1-yl)-2-oxo-1-phenylethyl]urea trifluoroacetate,

(R)-1-(2-[1,4']bipiperidinyl-1'-yl-2-oxo-1-phenylethyl)-3-(4-chlorophenyl)urea trifluoroacetate,

(R)-1-(4-chlorophenyl)-3-[2-(4-cyclohexylpiperazin-1-yl)-1-(4-hydroxyphenyl)-2-oxoethyl]urea trifluoroacetate,

(R)-1-(4-chlorophenyl)-3-[2-(4-cyclohexylpiperazin-1-yl)-2-oxo-1-phenylethyl]urea trifluoroacetate,

(R)-1-(4-chlorophenyl)-3-{1-(4-hydroxyphenyl)-2-[4-(4-methyl-piperazin-1-yl)piperidin-1-yl]-2-oxoethyl}urea bistrifluoroacetate,

(R)-1-(4-chlorophenyl)-3-{2-[4-(4-methylpiperazin-1-yl)piperidin-1-yl]-2-oxo-1-phenylethyl}urea bistrifluoroacetate,

(R)-1-(4-chlorophenyl)-3-[2-(4-morpholin-4-ylpiperidin-1-yl)-2-oxo-1-thiophen-2-ylethyl]urea trifluoroacetate,

(R)-1-(2-[1,4']bipiperidinyl-1'-yl-2-oxo-1-thiophen-2-ylethyl)-3-(4-chlorophenyl)urea trifluoroacetate,

(R)-1-(4-chlorophenyl)-3-[2-(4-cyclohexylpiperazin-1-yl)-2-oxo-1-thiophen-2-ylethyl]urea trifluoroacetate,

(R)-1-(4-chlorophenyl)-3-{2-[4-(4-methylpiperazin-1-yl)piperidin-1-yl]-2-oxo-1-thiophen-2-ylethyl}urea bistrifluoroacetate,

(R)-1-(4-chlorophenyl)-3-[2-(1'-methyl-4,4'-bipiperidinyl-1-yl)-2-oxo-1-(2-chlorophenyl)ethyl]urea,

(R)-1-(4-chlorophenyl)-3-[2-(4,4'-bipiperidinyl-1-yl)-2-oxo-1-(2-chlorophenyl)ethyl]urea,

(R)-1-(4-chlorophenyl)-3-[1-(2-chlorophenyl)-2-(1'-methyl-2'-oxo-4,4'-bipiperidinyl-1-yl)-2-oxoethyl]urea,

(R)-1-(4-chlorophenyl)-3-[1-phenyl-2-(1'-methyl-2'-oxo-4,4'-bi-piperidinyl-1-yl)-2-oxoethyl]urea,

2-(1'-methyl-4,4'-bipiperidinyl-1-yl)-2-oxo-1-phenylethyl (R)-4-chlorophenyl)carbamate,

2-oxo-1-phenyl-2-(4-pyridin-4-ylpiperazin-1-yl)ethyl (R)-(4-chlorophenyl)carbamate,

2-4,4'-bipiperidinyl-1-yl-1-(2-chlorophenyl)-2-oxoethyl (R)-(4-chlorophenyl)carbamate hydrochloride,

2-4,4'-bipiperidinyl-1-yl-2-oxo-1-phenylethyl (R)-(4-chloro-phenyl)carbamate hydrochloride,

1-(2-chlorophenyl)-2-(1'-methyl-4,4'-bipiperidinyl-1-yl)-2-oxoethyl (R)-(4-chlorophenyl)carbamate trifluoroacetate,

1-(2-chlorophenyl)-2-(4-morpholin-4-ylpiperidin-1-yl)-2-oxoethyl (R)-(4-chlorophenyl)carbamate trifluoroacetate,

2-[1,4']bipiperidinyl-1'-yl-1-(2-chlorophenyl)-2-oxoethyl (R)-(4-chlorophenyl)carbamate trifluoroacetate,

2-(4-morpholin-4-ylpiperidin-1-yl)-2-oxo-1-phenylethyl (R)-(4-chlorophenyl)carbamate trifluoroacetate,

2-[1,4']bipiperidinyl-1'-yl-2-oxo-1-phenylethyl (R)-(4-chlorophenyl)carbamate trifluoroacetate,

1-(2-chlorophenyl)-2-(4-cyclohexylpiperazin-1-yl)-2-oxoethyl (R)-(4-chlorophenyl)carbamate trifluoroacetate,

2-(4-cyclohexylpiperazin-1-yl)-2-oxo-1-phenylethyl (R)-(4-chlorophenyl)carbamate trifluoroacetate,

1-(2-chlorophenyl)-2-[4-(4-methylpiperazin-1-yl)piperidin-1-yl]-2-oxoethyl (R)-(4-chlorophenyl)carbamate bistrifluoroacetate,

2-[4-(4-methylpiperazin-1-yl)piperidin-1-yl]-2-oxo-1-phenylethyl (R)-(4-chlorophenyl)carbamate bistrifluoroacetate,

1-(2,3-difluorophenyl)-2-(1'-methyl-4,4'-bipiperidinyl-1-yl)-2-oxoethyl (R)-(4-chlorophenyl)carbamate,

1-(2-fluorophenyl)-2-(1'-methyl-4,4'-bipiperidinyl-1-yl)-2-oxoethyl (R)-(4-chlorophenyl)carbamate,

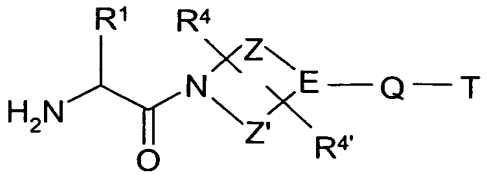
1-(2-methoxyphenyl)-2-(1'-methyl-4,4'-bipiperidinyl-1-yl)-2-oxoethyl (R)-(4-chlorophenyl)carbamate,

and pharmaceutically usable derivatives, solvates, salts and stereoisomers thereof, including mixtures thereof in all ratios.

22. Process for the preparation of compounds of the formula I according to Claims 1-21 and pharmaceutically usable derivatives, solvates and stereoisomers thereof, characterised in that

a) for the preparation of compounds of the formula I
in which
X denotes NH and
Y denotes O,

a compound of the formula II



II

in which

R^1, R^4, $R^{4'}$, E, Q, T, Z and Z' have the meanings indicated in Claim 1,

is reacted with a compound of the formula III

D-N=C=O III

in which

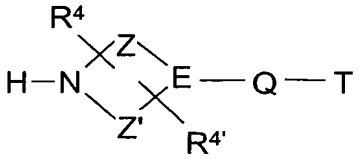
D has the meaning indicated in Claim 1,

or

b) for the preparation of compounds of the formula I

in which

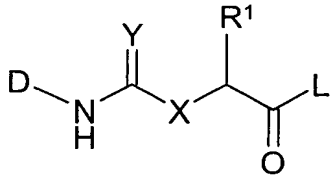
X and Y denote O,a compound of the formula IV



IV,

in which W, Y and T have the meaning indicated in Claim 1,

is reacted with a compound of the formula V



V

in which
X and Y denote O,
L denotes Cl, Br, I or a free or reactively functionally modified OH group and
R^1 and D have the meanings indicated in Claim 1,

and/or a base or acid of the formula I is converted into one of its salts.

23. Compounds of the formula I according to one or more of Claims 1 to 21 as inhibitors of coagulation factor Xa.

24. Compounds of the formula I according to one or more of Claims 1 to 21 as inhibitors of coagulation factor VIIa.

25. Medicaments comprising at least one compound of the formula I according to one or more of Claims 1 to 21 and/or pharmaceutically usable derivatives, solvates and stereoisomers thereof, including mixtures thereof in all ratios, and optionally excipients and/or adjuvants.

26. Medicaments comprising at least one compound of the formula I according to one or more of Claims 1 to 21 and/or pharmaceutically usable derivatives, solvates and stereoisomers thereof, including mixtures thereof in all ratios, and at least one further medicament active ingredient.

27. Use of compounds according to one or more of Claims 1 to 21 and/or physiologically acceptable salts and solvates thereof for the preparation of a medicament for the treatment of thromboses, myocardial infarction, arteriosclerosis, inflammation, apoplexy, angina pectoris,

restenosis after angioplasty, claudicatio intermittens, migraine, tumours, tumour diseases and/or tumour metastases.

28. Set (kit) consisting of separate packs of

(a) an effective amount of a compound of the formula I according to one or more of Claims 1 to 21 and/or pharmaceutically usable derivatives, solvates and stereoisomers thereof, including mixtures thereof in all ratios,

and

(b) an effective amount of a further medicament active ingredient.

29. Use of compounds of the formula I according to one or more of Claims 1 to 21 and/or pharmaceutically usable derivatives, solvates and stereoisomers thereof, including mixtures thereof in all ratios, for the preparation of a medicament for the treatment of thromboses, myocardial infarction, arteriosclerosis, inflammation, apoplexy, angina pectoris, restenosis after angioplasty, claudicatio intermittens, migraine, tumours, tumour diseases and/or tumour metastases, in combination with at least one further medicament active ingredient.